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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/632,802	08/04/2003	Jong-Chull Shon	1594.1227	7463
21171	7590	10/13/2004		
STAAS & HALSEY LLP SUITE 700 1201 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005			EXAMINER LEUNG, PHILIP H	
			ART UNIT	PAPER NUMBER
			3742	

DATE MAILED: 10/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/632,802

Applicant(s)

SHON ET AL.

Examiner

Philip H Leung

Art Unit

3742

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 20 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) 9,10,21,30 and 31 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 22,26,27,32 and 33 is/are allowed.
- 6) ☒ Claim(s) 1,3,4,11,12,17-20,23-25,28,29,34 and 35 is/are rejected.
- 7) ☒ Claim(s) 2,5-8 and 13-16 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 8-4-2003.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

1. Applicant's election with traverse of claims 1-8, 11-20, 22-29 and 32-35 in the reply filed on 9-20-2004 is acknowledged. The traversal is on the ground(s) that both groups of inventions are directed to a magnetron, microwave oven and high frequency heating apparatus. This is not found persuasive because it was NOT a restriction requirement but a SPECIES election. Obviously, species are directed to same Groups of invention, as pointed out in the requirement, unless applicant clearly admits on the record that the species are not patentably distinct and submits evidence or identifies such evidence now of record showing the species to be obvious variants of each other, the species election is proper and will not be withdrawn.

The requirement is still deemed proper and is therefore made FINAL.

2. Claims 9, 10, 21, 30 and 31 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species, there being no allowable generic or linking claim. Applicant timely traversed the election requirement in the reply filed on 9-20-2004.

3. In claim 16, the duplicate "the" at line 2 should be cancelled.

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 3, 4, 11, 12, 17-20, 23-25, 28, 29, 34 and 35 are rejected under 35 U.S.C. 102(b) as being anticipated by Kazuki (JP 5-41173) (cited by the applicant).

Kazuki shows a magnetron for microwave devices such as a microwave oven or radar (paragraph 0001). The magnetron includes a ring-shaped anode 1 forming a plurality of resonance circuits; a cathode 3 disposed at an axial center of the anode to emit thermions, separated from the anode by a predetermined space; a ring-shaped permanent magnet 8 provided above the anode; an upper pole piece 5 having a magnetic flux dispersing structure to carry magnetic flux generated by the permanent magnet to an upper portion of the predetermined space; a lower pole piece 6 carrying the magnetic flux to a lower portion of the predetermined space; and at least one yoke 9 magnetically connecting the permanent magnet with the lower pole piece (see Figures 1-6 and the English abstract). In regard to claims 19, 20 and 23-25, the claimed cooking cavity and control unit are basic essential elements of a microwave oven and inherent in every microwave oven. Similarly, in regard to claims 28, 29, 34 and 35, the claimed control unit is a basic essential element of a radar and inherent in every radar device.

6. Claims 22, 26, 27, 32 and 33 are allowed.

7. Claims 2, 5-8 and 13-16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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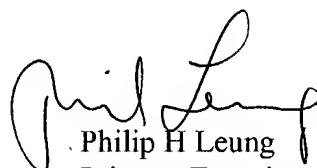
8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Yang (US 6,774,568) and Aiga (JP 11-283517) are further cited to show magnetron devices with similar claimed features.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Philip H Leung whose telephone number is (703) 308-1710.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robin Evans can be reached on (703) 305-5766. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Philip H Leung  
Primary Examiner  
Art Unit 3742

P.Leung/pl  
10-12-2004